

1. A method of modifying content, comprising:
  - determining that the content has a content rating which is greater than a specified content rating limit;
  - identifying at least one segment of the content to be replaced;
  - obtaining at least one segment of replacement content to substitute for the segment content to be replaced, wherein the replacement content meets criteria for a content rating which is no greater than the specified content rating limit; and
  - replacing the at least one segment of content to be replaced with the at least one segment of replacement content.
2. The method according to claim 1, wherein the content is identified by a first Packet Identifier (PID), and wherein the replacement content is identified by a second PID.
3. The method according to claim 2, further comprising mapping the at least one segment of replacement content from the second PID to the first PID.
4. The method according to claim 1, wherein the obtaining is carried out by a download from the Internet.
5. The method according to claim 1, wherein the obtaining is carried out by retrieving the replacement content from a computer readable storage medium.
6. The method according to claim 1, wherein the at least one segment of replacement content contains time stamps that define a start time and a stop time for replacement of each of the at least one segment of replacement content for the at least one segment of content to be replaced.

1        7.        The method according to claim 6, wherein the time stamps are carried in an  
2        MPEG adaptation field and wherein the substitution is carried out using an MPEG  
3        splice function.  
4

5        8.        The method according to claim 1, wherein the specified content rating limit  
6        is obtained from entries made by a user.  
7

8        9.        The method according to claim 1, wherein the specified content rating limit  
9        comprises a stored value established as part of a content entitlement package.  
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11       10.       The method according to claim 1, carried out in a content decoding device.  
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13       11.       The method according to claim 1, carried out in a television Set-Top Box.  
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15       12.       The method according to claim 1, wherein the replacement content contains  
16       video which is blanked, censored or re-framed to produce a lower rating, and  
17       wherein the replacement content contains audio which is blanked, over-dubbed or  
18       censored by masking with a sound.  
19

20       13.       A computer readable storage medium storing instructions which, when  
21       executed on a programmed processor, carry out a process of modifying content  
22       according to claim 1.  
23

1        14.    A method of modifying content, comprising:  
2                determining that the content has a content rating which is greater than a  
3        specified content rating limit;  
4                determining if a filter is available for the content;  
5                if a filter is not available for the content, blocking the content;  
6                if a filter is available for the content:  
7                        identifying at least one segment of the content to be replaced;  
8                        obtaining at least one segment of replacement content to substitute  
9        for the segment content to be replaced, wherein the replacement content  
10       meets criteria for a content rating which is no greater than the specified  
11       content rating limit; and  
12                replacing the at least one segment of content to be replaced with the  
13       at least one segment of replacement content.

14  
15       15.    The method according to claim 14, wherein the content is identified by a first  
16       Packet Identifier (PID), and wherein the replacement content is identified by a  
17       second PID.

18  
19       16.    The method according to claim 15, further comprising mapping the at least  
20       one segment of replacement content from the second PID to the first PID.

21  
22       17.    The method according to claim 14, wherein the obtaining is carried out by a  
23       download from the Internet.

24  
25       18.    The method according to claim 14, wherein the obtaining is carried out by  
26       retrieving the replacement content from a computer readable storage medium.  
27  
28

1        19.    The method according to claim 14, wherein the at least one segment of  
2        replacement content contains time stamps that define a start time and a stop time  
3        for replacement of each of the at least one segment of replacement content for the  
4        at least one segment of content to be replaced.

5  
6        20.    The method according to claim 19, wherein the time stamps are carried in  
7        an MPEG adaptation field and wherein the substitution is carried out using an  
8        MPEG splice function.

9  
10       21.    The method according to claim 14, wherein the specified content rating limit  
11       is obtained from entries made by a user.

12  
13       22.    The method according to claim 14, wherein the specified content rating limit  
14       comprises a stored value established as part of a content entitlement package.

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16       23.    The method according to claim 14, carried out in a television Set-Top Box.

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18       24.    The method according to claim 14, carried out in a content decoding device.

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20       25.    A computer readable storage medium storing instructions which, when  
21       executed on a programmed processor, carry out a process of modifying content  
22       according to claim 14.

1        26.    A method of modifying content, comprising:  
2                determining that the content has a content rating which is greater than a  
3                specified content rating limit;  
4                identifying at least one segment of the content to be replaced by retrieving  
5                a filter for the content, wherein the filter specifies a location for each of the at least  
6                one segment of content;  
7                obtaining a segment of replacement content corresponding to each segment  
8                of content to be replaced, wherein the replacement content meets criteria for a  
9                content rating no greater than the specified content rating; and  
10              replacing each segment of content to be replaced with the corresponding  
11              segment of replacement content.

12  
13        27.    The method according to claim 26, wherein the content is identified by a first  
14              Packet Identifier (PID), and wherein the replacement content is identified by a  
15              second PID.

16  
17        28.    The method according to claim 27, further comprising mapping the at least  
18              one segment of replacement content from the second PID to the first PID.

19  
20        29.    The method according to claim 26, wherein the obtaining is carried out by a  
21              download from the Internet.

22  
23        30.    The method according to claim 26, wherein the obtaining is carried out by  
24              retrieving the replacement content from a computer readable storage medium.

25  
26        31.    The method according to claim 26, wherein the at least one segment of  
27              replacement content contains time stamps that define a start time and a stop time  
28              for replacement of each at least one segment of replacement content for the at least  
29              one segment of content to be replaced.

1        32.    The method according to claim 31, wherein the time stamps are carried in  
2        an MPEG adaptation field and wherein the substitution is carried out using an  
3        MPEG splice function.  
4

5        33.    The method according to claim 26, wherein the specified content rating limit  
6        is obtained from entries made by a user.  
7

8        34.    The method according to claim 26, wherein the specified content rating limit  
9        comprises a stored value established as part of a content entitlement package.  
10

11       35.    The method according to claim 26, carried out in a television Set-Top Box.  
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13       36.    The method according to claim 26, carried out in a content decoding device.  
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15       37.    The method according to claim 26, wherein the replacement content contains  
16       video which is blanked, censored or re-framed to produce a lower rating, and  
17       wherein the replacement content contains audio which is blanked, over-dubbed or  
18       censored by masking with a sound.  
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20       38.    A computer readable storage medium storing instructions which, when  
21       executed on a programmed processor, carry out a process of modifying content  
22       according to claim 26.  
23  
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1        39.    A method of modifying content, comprising:  
2            identifying the content by a first Packet Identifier (PID);  
3            obtaining a content rating for the content;  
4            obtaining a specified content rating limit;  
5            determining that the content has a content rating which is greater than the  
6            specified content rating limit;  
7            identifying a plurality of segments of the content to be replaced by retrieving  
8            a filter for the content, wherein the filter specifies a location for each of the  
9            segments of content;  
10          obtaining a plurality of segments of replacement content corresponding to  
11          the plurality of segments of content to be replaced, wherein the segments of  
12          replacement content each meet criteria for having a content rating no greater than  
13          the specified content rating, and wherein the replacement content is identified by  
14          a second PID; and  
15          replacing each of the plurality of segments of content to be replaced with the  
16          corresponding segments of replacement content.  
17  
18        40.    The method according to claim 39, further comprising mapping the plurality  
19        of segments of replacement content from the second PID to the first PID.  
20  
21        41.    The method according to claim 39, wherein the obtaining is carried out by a  
22        download from the Internet.  
23  
24        42.    The method according to claim 39, wherein the obtaining is carried out by  
25        retrieving the replacement content from a computer readable storage medium.  
26  
27        43.    The method according to claim 39, wherein the specified content rating limit  
28        is obtained from entries made by a user.  
29

1        44.    The method according to claim 39, wherein the specified content rating limit  
2        comprises a stored value established as part of a content entitlement package.

3  
4        45.    The method according to claim 39, wherein the segments of substitute  
5        content contains time stamps that define start times and stop times for substitution  
6        of each segment of substitute data for the segments of content to be replaced.

7  
8        46.    The method according to claim 39, wherein the time stamps are carried in  
9        an MPEG adaptation field and wherein the substitution is carried out using an  
10       MPEG splice function.

11  
12       47.    The method according to claim 39, carried out in a television Set-Top Box.

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14       48.    The method according to claim 39, carried out in a content decoding device.

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16       49.    A computer readable storage medium storing instructions which, when  
17       executed on a programmed processor, carry out a process of modifying content  
18       according to claim 39.



1        50.    A method of modifying content in a television Set-Top Box, comprising:  
2            identifying the content by a first Packet Identifier (PID);  
3            obtaining a content rating for the content;  
4            obtaining a specified content rating limit from a stored value;  
5            determining that the content has a content rating which is greater than a  
6 specified content rating limit;  
7            determining if a filter is available for the content;  
8            if a filter is not available for the content, blocking the content;  
9            if a filter is available for the content:  
10                downloading the filter;  
11                using the filter to identify at least one segment of the content to be  
12 replaced;  
13                downloading at least one segment of replacement content to  
14 substitute for the segment content to be replaced, wherein the replacement  
15 content meets criteria for a content rating which is no greater than the  
16 specified content rating limit, and wherein the replacement content is  
17 identified by a second PID;  
18            wherein the at least one segment of replacement content contains time  
19 stamps that define a start time and a stop time for replacement of each of the at  
20 least one segment of replacement content for the at least one segment of content  
21 to be replaced and wherein the time stamps are carried in an MPEG adaptation  
22 field;  
23                replacing the at least one segment of content to be replaced with the  
24 at least one segment of replacement content, wherein the replacing is  
25 carried out using an MPEG splice function; and  
26                mapping the at least one segment of replacement content from the  
27 second PID to the first PID.  
28

1        51.    A content decoding device, comprising:  
2                a comparing circuit that compares a content rating of the content with a  
3        specified content rating limit;  
4                a filter that identifies a location in the content of at least one segment of the  
5        content to be replaced; and  
6                a content replacer that replaces the at least one segment of content to be  
7        replaced with at least one segment of replacement content, wherein the  
8        replacement content meets criteria for a content rating which is no greater than the  
9        specified content rating limit.

10  
11       52.    The content decoding device according to claim 51, wherein the content is  
12       identified by a first Packet Identifier (PID), and wherein the replacement content is  
13       identified by a second PID.

14  
15       53.    The content decoding device according to claim 52, further comprising a PID  
16       mapper that maps the at least one segment of replacement content from the second  
17       PID to the first PID.

18  
19       54.    The content decoding device according to claim 51, wherein the at least one  
20       segment of replacement content contains time stamps that define a start time and  
21       a stop time for replacement of each at least one segment of replacement content  
22       for the at least one segment of content to be replaced.

23  
24       55.    The content decoding device according to claim 54, wherein the time stamps  
25       are carried in an MPEG adaptation field and wherein the substitution is carried out  
26       using an MPEG splice function.

1        56.    The content decoding device according to claim 51, further comprising a  
2        modem, and wherein the replacement content is obtained by a download from the  
3        Internet.  
4

5        57.    The content decoding device according to claim 51, further comprising a  
6        computer readable storage medium, and wherein the replacement content is  
7        retrieved from the computer readable storage medium.  
8

9        58.    The content decoding device according to claim 51, further comprising a user  
10       interface, and wherein the specified content rating limit is obtained from entries  
11       made by a user.  
12

13       59.    The content decoding device according to claim 51, further comprising a  
14       storage device, and wherein the specified content rating limit comprises a value  
15       stored on the storage device that is established as part of a content entitlement  
16       package.  
17

18       60.    The content decoding device according to claim 51, further comprising a  
19       content player device supplying the content.  
20

21       61.    The content decoding device according to claim 51, further comprising a  
22       receiver that receives the content from one of a satellite television distribution  
23       network and a cable system distribution network.  
24

25       62.    The content decoding device according to claim 51, embodied within a  
26       television Set-Top Box.  
27  
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1        63.    A data signal, comprising:

2            a segment of replacement content for use in replacing main content, wherein  
3        the main content has a specified content rating and wherein the segment of  
4        replacement content meets criteria for a lower content rating; and

5            filter data identifying a segment of main content for which the segment of  
6        replacement content replaces.

7  
8        64.    The data signal according to claim 63, wherein the main content is identified  
9        by a first Packet Identifier (PID), and wherein the replacement content is identified  
10       by a second PID.

11  
12       65.    The data signal according to claim 63, stored on a computer readable  
13       storage medium.

14  
15       66.    The data signal according to claim 63, wherein the filter data comprises time  
16       stamps that define start time and stop time for replacement of the segment of  
17       replacement content for the segment of content to be replaced.

18  
19       67.    The data signal according to claim 66, wherein the time stamps are carried  
20       in an MPEG adaptation field.

1        68.    A method of producing replacement content for replacement of segments of  
2        main content, comprising:

3                generating segments of replacement content corresponding to segments of  
4        main content, wherein the segments of replacement content meet criteria for a lower  
5        content rating than that of the main content;

6                generating filter data that identifies starting points and stopping points in the  
7        main content for substitution of the segments of replacement content for the main  
8        content; and

9                storing the filter data and the segments of replacement content as one or  
10       more computer readable data.

11  
12       69.    The method according to claim 68, wherein the main content is identified by  
13       a first Packet Identifier (PID), and further comprising identifying the replacement  
14       content by a second PID.

15  
16       70.    The method according to claim 68, wherein the filter data comprises time  
17       stamps that define start times and stop times for replacement of the segments of  
18       replacement content for the segments of content to be replaced.

19  
20       71.    The method according to claim 70, wherein the time stamps are carried in  
21       an MPEG adaptation field.

22  
23       72.    The method according to claim 68, wherein the replacement content contains  
24       video which is blanked, censored or re-framed to produce a lower rating, and  
25       wherein the replacement content contains audio which is blanked, over-dubbed or  
26       censored by masking with a sound.

1       73.    A method of producing replacement content for replacement of segments of  
2   main content, comprising:

3           generating segments of replacement content corresponding to segments of  
4   main content, wherein the segments of replacement content meet criteria for a lower  
5   content rating than that of the main content;

6           generating filter data that identifies starting points and stopping points in the  
7   main content for substitution of the segments of replacement content for the main  
8   content; and

9           transmitting the filter data and the segments of replacement content to a  
10   remotely located decoding device.

11  
12       74.    The method according to claim 73, wherein the main content is identified by  
13   a first Packet Identifier (PID), and further comprising identifying the replacement  
14   content by a second PID.

15  
16       75.    The method according to claim 73, wherein the filter data comprises time  
17   stamps that define start times and stop times for replacement of the segments of  
18   replacement content for the segments of content to be replaced.

19  
20       76.    The method according to claim 75, wherein the time stamps are carried in  
21   an MPEG adaptation field.

22  
23       77.    The method according to claim 73, wherein the replacement content contains  
24   video which is blanked, censored or re-framed to produce a lower rating, and  
25   wherein the replacement content contains audio which is blanked, over-dubbed or  
26   censored by masking with a sound.